



PATENT

Attorney Docket No. A-71386-8

Dorsey File No. 463077-00275

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Lazar et al

Serial No.: 10/822,231

Filing Date: March 26, 2004

For: *Optimized Fc Variants and Methods for  
Their Generation*

Examiner: Crowder, Chun

Art Unit: 1644

CERTIFICATE OF MAILING

I hereby certify that this correspondence, including listed enclosures, is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, Mail Stop Amendment, P.O. Box 1450, Alexandria, VA 22313-1450 on:

Dated: May 12, 2006

Signed: Victoria Linne Poulsen  
Victoria Linne Poulsen

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and in accordance with the provisions of 37 C.F.R. §§ 1.97 and 1.98, Applicants wish to draw the attention of the U.S. Patent and Trademark Office to the references cited on the accompanying form PTO/SB/8A. In accordance with 1287 Off. Gaz. Pat. Office 163, 10/19/2004, no copies of U.S. patents and U.S. published applications are enclosed. Copies of all other references are enclosed.

Since copies of the references were provided either by the Applicant or the Examiner in the following related U.S. Application: Serial No. U.S.S.N. 10/672,280 filed September 26, 2003; upon which the instant application relies for its priority date, in accordance with 37 C.F.R. § 1.98(d), no copies of these references are enclosed.

Further, in satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and as required by M.P.E.P. § 2001.06(b), Applicant notes that the present application is related to the following pending patent applications:

1. U.S.S.N. 11/396,495, filed March 31, 2006;
2. U.S.S.N. 11/174,287, filed June 30, 2005;
3. U.S.S.N. 11/124,620, filed May 5, 2005;

Serial No.: 10/822,231  
Filing Date: March 26, 2004

4. U.S.S.N. 10/672,280 filed September 26, 2003;
5. U.S.S.N. 10/379,392 filed March 3, 2003 (now abandoned.)

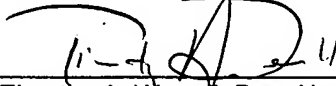
Nothing herein shall constitute an admission concerning the contents of any of the cited references, nor shall the inclusion of a reference herein be considered an admission that the reference constitutes prior art against the invention claimed in the above-identified application. Submission of the present document shall not be construed as an admission that a search has been made or that better art does not exist.

As far as is known to the undersigned, this Information Disclosure Statement is being filed before the payment of the issue fee, with a check for \$180.00, and a statement pursuant to 37 C.F.R. § 1.97(e).

While no fee is believed to be due, if this belief is in error, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-2319 (File No.: 463077-00275); Docket No. A-71386-8).

Respectfully submitted,  
DORSEY & WHITNEY LLP

Dated: May 12, 2006  
**Customer Number: 32940**  
Dorsey & Whitney LLP  
Intellectual Property Department  
555 California Street, Suite 3400  
San Francisco, CA 94104-1513  
Telephone: (415) 781-1989  
Facsimile: (415) 398-3249

By:   
Timothy A. Worrall, Reg. No. 54,552 for  
Robin M. Silva, Reg. No. 38,304

*Filed Under 37 C.F.R. § 1.34*

Attachments: Substitute PTO/SB/08A for Form 1449A/PTO  
Return Post Card

4852-6000-2817\1

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO  
(Modified)**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

1

20

**Complete if Known**

Application Number	10/822,231
Filing Date	March 26, 2004
First Named Inventor	Lazar, et al.
Art Unit	1644
Examiner Name	Crowder, Chun
Attorney Docket Number	A-71386-8 (463077-00275)

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	US-2001/0036459 A1	11-01-2001	Ravetch	
	A2	US-2002/0004587 A1	01-10-2002	Miller, et al.	
	A3	US-2002/0048772 A1	04-25-2002	Dahiyat et al.	
	A4	US-2002/0062010 A1	05-23-2002	Arathoon, et al.	
	A5	US-2002/0090648 A1	07-11-2002	Dahiyat et al.	
	A6	US-2002/0142374 A1	10-03-2002	Gallo, et al.	
	A7	US-2002/0155537 A1	10-24-2002	Carter, et al.	
	A8	US-2002/0164328 A1	11-07-2002	Shinkawa, et al.	
	A9	US-2002/0192222 A1	12-19-2002	Blumberg, et al.	
	A10	US-2003/0012789 A1	01-16-2003	Blumberg, et al.	
	A11	US-2003/0049654 A1	03-13-2003	Dahiyat et al.	
	A12	US-2003/0078385 A1	04-24-2003	Arathoon, et al.	
	A13	US-2003/0105294 A1	06-05-2003	Gilles, et al.	
	A14	US-2003/0108548 A1	06-12-2003	Bluestone, et al.	
	A15	US-2003/0118592 A1	06-26-2003	Ledbetter, et al.	
	A16	US-2003/0130827 A1	07-10-2003	Bentzien et al.	
	A17	US-2003/0133939 A1	07-17-2003	Ledbetter, et al.	
	A18	US-2003/0143682 A1	07-31-2003	Nicolaides, et al.	
	A19	US-2003/0157108 A1	08-21-2003	Presta	
	A20	US-2003/0158289 A1	08-21-2003	Rusin, R. et al.	
	A21	US-2003/0158389 A1	08-21-2003	Idusogie, et al.	
	A22	US-2003/0166868 A1	09-04-2003	Presta, et al.	
	A23	US-2003/0175884 A1	09-18-2003	Umana, et al.	
	A24	US-2003/0190311 A1	10-09-2003	Dall'Acqua, et al.	
	A25	US-2003/0208054 A1	11-06-2003	Olsen, et al.	
	A26	US-2003/0224397 A1	12-04-2003	Lowman, et al.	
	A27	US-2003/0229208 A1	12-11-2003	Queen, et al.	
	A28	US-2003/0235536 A1	12-25-2003	Blumberg, et al.	
	A29	US-2004/0002587 A1	01-01-2004	Watkins, et al.	
	A30	US-2004/0043429 A1	03-04-2004	Dahiyat et al.	

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number	10/822,231	
			Filing Date	March 26, 2004	
			First Named Inventor	Lazar, et al.	
			Art Unit	1644	
			Examiner Name	Crowder, Chun	
Sheet	2		20	Attorney Docket Number	A-71386-8 (463077-00275)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A31	US-2004/0043430 A1	03-04-2004	Dahiyat et al.	
	A32	US-2004/0062763 A1	04-01-2004	Mosser, et al.	
	A33	US-2004/0185045 A1	09-23-2004	Koenig, et al.	
	A34	US-2004/0191244 A1	09-30-2004	Presta	
	A35	US-2004/0191256 A1	09-30-2004	Raju	
	A36	US-2004/0192897 A2	09-30-2004	Winter	
	A37	US-2004/0228856 A1	11-18-2004	Presta	
	A38	US-2004/0258677 A1	12-23-2004	Waldmann, et al.	
	A39	US-2004/0258682 A1	12-23-2004	Leung, et al.	
	A40	US-2004/0259150 A1	12-23-2004	Nakamura, et al.	
	A41	US-2005/0014934 A1	01-20-2005	Hinton, et al.	
	A42	US-2005/0031626 A1	02-10-2005	Stevenson	
	A43	US-2005/0032114 A1	02-10-2005	Hinton, et al.	
	A44	US-2005/0033029 A1	02-10-2005	Lu	
	A45	US-2005/0037000 A1	02-17-2005	Stavenhagen, et al.	
	A46	US-2005/0037002 A1	02-17-2005	Velardi, et al.	
	A47	US-2005/0038610 A1	02-17-2005	Mayo et al.	
	A48	US-2005/0054046 A1	03-10-2005	Presta, et al.	
	A49	US-2005/0064514 A1	03-24-2005	Stavenhagen, et al.	
	A50	US-2005/0118174 A1	06-02-2005	Presta	
	A51	US-2005/0152894 A1	07-14-2005	Krummen, et al.	
	A52	US-2005/0175614 A1	08-11-2005	Ledbetter, et al.	
	A53	US-2005/0202023 A1	09-15-2005	Ledbetter, et al.	
	A54	US-2005/0202028 A1	09-15-2005	Ledbetter, et al.	
	A55	US-2005/0202534 A1	09-15-2005	Ledbetter, et al.	
	A56	US-2005/0215767 A1	09-29-2005	Koenig, et al.	
	A57	US-2005/0226864 A1	10-13-2005	Hinton, et al.	
	A58	US-2005/0233382 A1	10-20-2005	Presta	
	A59	US-2005/0272128 A1	12-08-2005	Umana, et al.	
	A60	US-2005-0276799 A1	12-15-2005	Hinton, et al.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number	10/822,231	
			Filing Date	March 26, 2004	
			First Named Inventor	Lazar, et al.	
			Art Unit	1644	
			Examiner Name	Crowder, Chun	
Sheet	3		20	Attorney Docket Number	A-71386-8 (463077-00275)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A61	US-2006/0019316 A1	01-26-2006	Mayo, et al	
	A62	US-4,816,397	03-28-1989	Boss, et al.	
	A63	US-5,225,348	07-06-1993	Nagata, et al.	
	A64	US-5,266,491	11-30-1993	Nagata, et al	
	A65	US-5,328,987	06-12-1994	Maliszewski	
	A66	US-5,541,087	07-30-1996	Lo, et al.	
	A67	US-5,576,184	11-19-1996	Better, et al.	
	A68	US-5,623,053	04-22-1997	Gastinel et al.	
	A69	US-5,624,821	04-29-1997	Winter, et al.	
	A70	US-5,633,162	05-27-1997	Keen, et al.	
	A71	US-5,648,237	07-15-1997	Carter	
	A72	US-5,648,260	07-15-1997	Winter, et al.	
	A73	US-5,821,337	10-13-1998	Carter, et al.	
	A74	US-5,834,597	11-10-1998	Tso, et al.	
	A75	US-5,885,573	03-23-1999	Bluestone, et al.	
	A76	US-6,030,613	02-29-2000	Blumberg, et al.	
	A77	US-6,086,875	07-11-2000	Blumberg, et al	
	A78	US-6,121,022	09-19-2000	Presta, et al.	
	A79	US-6,165,745	12-26-2000	Ward, et al.	
	A80	US-6,188,965 B1	02-13-2001	Mayo et al.	
	A81	US-6,194,551 B1	02-27-2001	Idusogie, et al.	
	A82	US-6,242,195 B1	06-05-2001	Idusogie, et al.	
	A83	US-6,269,312 B1	07-31-2001	Mayo et al.	
	A84	US-6,277,375 B1	08-21-2001	Ward	
	A85	US-6,331,415 B1	12-18-2001	Cabilly, et al.	
	A86	US-6,358,733 B1	03-19-2002	Motwani et al.	
	A87	US-6,365,161 B1	04-02-2002	Deo, et al.	
	A88	US-6,403,312 B1	06-11-2002	Dahiyat et al.	
	A89	US-6,444,789 B1	09-03-2002	Luo	
	A90	US-6,485,726 B1	11-26-2002	Blumberg, et al.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>	
			Application Number	10/822,231
			Filing Date	March 26, 2004
			First Named Inventor	Lazar, et al.
			Art Unit	1644
			Examiner Name	Crowder, Chun
Sheet	4	20	Attorney Docket Number	A-71386-8 (463077-00275)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A91	US-6,528,624 B1	03-04-2003	Idusogie, et al.	
	A92	US-6,538,124 B1	03-25-2003	Idusogie, et al.	
	A93	US-6,632,927 B2	10-14-2003	Adair, et al.	
	A94	US-6,649,165 B1	11-18-2003	Schubert	
	A95	US-6,708,120 B1	03-16-2004	Mayo et al.	
	A96	US-6,719,971 B1	04-13-2004	Carter, et al.	
	A97	US-6,737,056 B1	05-18-2004	Presta	
	A98	US-6,792,356 B2	09-14-2004	Mayo et al.	
	A99	US-6,797,492 B2	09-28-2004	Daugherty, et al.	
	A100	US-6,801,861 B2	10-05-2004	Mayo et al.	
	A101	US-6,804,611 B2	10-12-2004	Mayo et al.	
	A102	US-6,821,505 B2	11-23-2004	Ward	
	A103	US-6,821,505 B2	11-23-2004	Ward	
	A104	US-6,933,368 B2	08-23-2005	Co, et al.	
	A105	US-6,946,292 B2	09-20-2005	Kanda, et al.	
	A106	US-6,950,754 B2	09-27-2005	Mayo et al.	
	A107	US-6,982,321 B2	01-03-2006	Winter	
	A108	US-6,992,234 B2	01-31-2006	Roopenian	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>2</sup> Number <sup>3</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	B1	WO 00/42072 A2, A3	07-20-2000	Genentech Inc		
	B2	WO 98/47089 A1	11-22-1998	California Institute of Technology		
	B3	EP 1 255 209 A2	11-06-2002	California Institute of Technology		
	B4	WO 00/23564 A2, A3	04-27-2000	Xencor, Inc.		
	B5	WO 01/59066 A2, A3	08-16-2001	Xencor, Inc.		
	B6	WO 03/014325 A2, A3	02-20-2003	Xencor, Inc.		
	B7	EP 1 255 826 B1	00-13-2002	Xencor, Inc.		
	B8	EP 0 268 636 B1	01-08-1997	McKenzie, I. F., et al.		
Examiner Signature				Date Considered		

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number	10/822,231	
			Filing Date	March 26, 2004	
			First Named Inventor	Lazar, et al.	
			Art Unit	1644	
Examiner Name	Crowder, Chun				
Sheet	5	20	Attorney Docket Number	A-71386-8 (463077-00275)	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>2</sup> Number <sup>3</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	B9	EP 0 383 799 B2	02-09-2005	Genentech, Inc.		
	B10	EP 0 383 799 B2	02-09-2005	Genentech, Inc.		
	B11	EP 0 753 065 B1	05-14-2003	Celltech Therapeutics Limited		
	B12	EP 0 805 628 B1	05-02-2003	Brigham And Women's Hospital, Inc.		
	B13	EP 0 888 125 B1	05-26-2004	Leung, S., et al.		
	B14	EP 0 904 107 B1	10-20-2004	Board of Regents, The University of Texas System		
	B15	EP 1 176 195 A1	01-30-2002	Kyowa Hakko Kogyo Co., Ltd.		
	B16	EP 1 229 125 A1	08-07-2002	Kyowa Hakko Kogyo Co., Ltd.		
	B17	EP 1 323 346 A2, A3	11-26-2003	Brigham And Women's Hospital, Inc.		
	B18	WO 00/09560 A2, A3	02-24-2000	Abgenix, Inc.		
	B19	WO 00/24782 A2, A3	05-04-2000	Amgen Inc.		
	B20	WO 00/61739 A1	10-19-2000	Kyowa Hakko Kogyo Co. Ltd		
	B21	WO 01/29246 A1	04-26-2001	Kyowa Hakko Kogyo Co., Ltd.		
	B22	WO 01/38490 A2	05-31-2001	The Trustees of Columbia University in the City of New York		
	B23	WO 01/57088 A1	08-09-2001	Hammarstrom, L., et al.		
	B24	WO 02/060919 A2, A3	08-08-2002	Medimmune, Inc.		
	B25	WO 02/061090 A3	08-08-2002	Genentech, Inc.		
	B26	WO 02/061093 A1	08-08-2002	Genentech, Inc.		
	B27	WO 02/30954 A1	04-18-2002	Kyowa Hakko Kogyo Co., Ltd.		
	B28	WO 02/31140 A1	04-18-2002	Kyowa Hakko Kogyo Co., Ltd.		
	B29	WO 02/44215 A2	06-06-2002	Cockbain, J.		
	B30	WO 03/016470 A2	02-27-2003	University of Virginia Patent Foundation		
	B31	WO 03/035835 A2, A3	05-01-2003	Genentech, Inc.		
	B32	WO 03/054213 A2	07-03-2003	Genentech, Inc.		
	B33	WO 03/089624 A2	10-30-2003	UAB Research Foundation		
Examiner Signature				Date Considered		

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number	10/822,231	
			Filing Date	March 26, 2004	
			First Named Inventor	Lazar, et al.	
			Art Unit	1644	
			Examiner Name	Crowder, Chun	
Sheet	6		20	Attorney Docket Number	A-71386-8 (463077-00275)

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>2</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	B34	WO 04/004662 A2	01-15-2004	Genentech, Inc.		
	B35	WO 04/004798 A2, A3	01-15-2004	The Brigham and Women's Hospital, Inc., et al.		
	B36	WO 04/016750 A3	02-26-2004	Macrogenics, Inc		
	B37	WO 04/022717 A2, A3	03-18-2004	The Government of the United States of America as Represented by the Secretary of the Department of Health and Human Services		
	B38	WO 04/024871 A2	03-25-2004	Morphotect, Inc.		
	B39	WO 04/024889 A2	03-25-2004	Elusys Therapeutics, Inc.		
	B40	WO 04/035752 A2	04-29-2004	Protein Designs Labs, Inc.		
	B41	WO 04/056312 A2	07-08-2004	Genentech, Inc.		
	B42	WO 04/063351 A2, A3	07-29-2004	Macrogenics, Inc.		
	B43	WO 04/074455 A2, A3	09-02-2004	Applied Molecular Evolution		
	B44	WO 04/092219 A2	10-28-2004	Protein Design Labs, Inc.		
	B45	WO 04/103404 A1	12-02-2004	Applied Molecular Evolution		
	B46	WO 04/110472 A2	12-23-2004	Eli Lilly and Company		
	B47	WO 05/000899 A2	01-06-2005	Biogen Idec Ma Inc.		
	B48	WO 05/001025 A2	01-06-2005	Syntonix, Inc.		
	B49	WO 05/007809 A2	01-27-2005	Alexion Pharmaceuticals, Inc.		
	B50	WO 05/011376 A2	02-10-2005	Biogen Idec Ma Inc.		
	B51	WO 05/012877 A2	02-10-2005	DNA Twopointo Inc.		
	B52	WO 05/116078 A1	12-08-2005	Medexgen, Inc.		
	B53	WO 05/013090 A2	02-10-2005	DNA Twopointo Inc.		
	B54	WO 05/018572 A2	03-03-2005	Biogen Idec Ma Inc.		
	B55	WO 05/023866 A2	03-17-2005	Baxter International Inc.		
	B56	WO 05/027966 A2	03-31-2005	Genentech, Inc.		
	B57	WO 05/037867 A1	04-28-2005	Protein Design Labs Inc.		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number	10/822,231	
			Filing Date	March 26, 2004	
			First Named Inventor	Lazar, et al.	
			Art Unit	1644	
			Examiner Name	Crowder, Chun	
Sheet	7		20	Attorney Docket Number	A-71386-8 (463077-00275)

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>2</sup> Number <sup>3</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	B58	WO 05/040217 A2	05-06-2005	Cambridge University Technical Services Limited		
	B59	WO 05/047327 A2	05-26-2005	Biogen Idec Ma Inc.		
	B60	WO 05/060642 A2	07-07-2005	Alexion Pharmaceuticals, Inc.		
	B61	WO 05/063815 A2	07-14-2005	Biogen Idec Ma Inc.		
	B62	WO 05/070963 A1	08-04-2005	Applied Molecular Evolution, Inc.		
	B63	WO 05/116078 A1	12-08-2005	Medexgen Inc.		
	B64	WO 05/123780 A2	12-29-2005	Protein Design Labs, Inc.		
	B65	WO 06/012500 A2	02-02-2006	Genentech, Inc.		
	B66	WO 88/07089 A1	09-22-1988	Medical Research Council		
	B67	WO 91/06305 A1	05-16-1991	Bristol-Meyers Squibb Company		
	B68	WO 91/19515 A1	12-26-1991	The Board of Trustees of the Leland Stanford Junior University		
	B69	WO 92/04053 A1	03-19-1992	Bristol-Myers Squibb Company		
	B70	WO 92/16562 A1	10-01-1992	Lynxvale Limited		
	B71	WO 92/22324 A1	12-23-1992	Xoma Corporation		
	B72	WO 94/29351 A2, A3	12-22-1994	Celltech Limited		
	B73	WO 95/05468 A1	02-23-1995	Lynxvale Limited		
	B74	WO 96/22024 A1	07-25-1996	Brigham And Women's Hospital, Inc.		
	B75	WO 97/28267 A1	08-07-1997	Repligen Corporation		
	B76	WO 97/34631 A1	09-25-1997	Board of Regents; The University of Texas System		
	B77	WO 98/02462 A1	01-22-1998	Morphosys Gesellschaft für Proteinoptimierung MBH		
	B78	WO 98/23289 A1	06-04-1998	The General Hospital Corporation		
	B79	WO 99/04813 A1	02-04-1999	Brigham & Women's Hospital, Inc., et al.		
	B80	WO 99/51642 A1	10-14-1999	Genentech, Inc.		
	B81	WO 99/54342 A1	10-28-1999	Umana, P., et al.,		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number	10/822,231	
			Filing Date	March 26, 2004	
			First Named Inventor	Lazar, et al.	
			Art Unit	1644	
			Examiner Name	Crowder, Chun	
Sheet	8		20	Attorney Docket Number	A-71386-8 (463077-00275)

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>2</sup> Number <sup>3</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	B82	WO 99/58572 A1	11-18-1999	Cambridge University Technical Services Limited		
	B83	WO 98/05787 A1	02-12-1998	Bristol-Meyers Squibb Company		

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	C1	ALGRE, et al., "A non-activating "humanized" anti-CD3 monoclonal antibody retains immunosuppressive properties in vivo," <i>Transplantation</i> , 57:1537-1543 (1994).	
	C2	ARMOUR, et al., "Recombinant human IgG molecules lacking Fc gamma receptor I binding and monocyte triggering activities," <i>Eur J Immunol</i> , 29:2613-2624 (1999).	
	C3	ASHKENAZI, et al., "Immunoadhesins as research tools and therapeutic agents," <i>Curr Opin Immunol</i> , 9:195-200 (1997).	
	C4	CHAMOW, et al., "Immunoadhesins: principles and applications," <i>Trends Biotechnol</i> , 14:52-60 (1996).	
	C5	DAVIES, et al. "Expression of GnTIII in a recombinant anti-CD20 CHO production cell line: Expression of antibodies with altered glycoforms leads to an increase in ADCC through higher affinity for FC gamma RIII," <i>Biotechnol Bioeng</i> , 74:288-294 (2001).	
	C6	HUTCHINS, et al., "Improved biodistribution, tumor targeting, and reduced immunogenicity in mice with a gamma 4 variant of Campath-1H," <i>PNAS USA</i> , 92:11980-11984 (1995).	
	C7	JEFFERIES, et al., <i>Immunol Lett</i> , 54:101-104 (1996).	
	C8	KRAPP, et al., "Structural analysis of human IgG-Fc glycoforms reveals a correlation between glycosylation and structural integrity," <i>J Mol Biol</i> , 325:979-989 (2003).	
	C9	LEHRNBECHER, et al., "Variant Genotypes of the Low-Affinity Fc $\gamma$ Receptors in Two Control Populations and a Review of Low-Affinity Fc $\gamma$ Receptor Polymorphisms in Control and Disease Populations," <i>Blood</i> , 94:4220-4232 (1999).	
	C10	LUND, et al., "Human Fc gamma RI and Fc gamma RII interact with distinct but overlapping sites on human IgG," <i>J Immunol</i> , 147:2657-2662 (1991).	
	C11	LUND, et al., "Multiple binding sites on the CH2 domain of IgG for mouse Fc gamma R11," <i>Mol Immunol</i> , 29:53-59 (1992).	
	C12	LUND, et al., "Multiple interactions of IgG with its core oligosaccharide can modulate recognition by complement and human Fc gamma receptor I and influence the synthesis of its oligosaccharide chains," <i>J Immunol</i> , 154:4963-4969 (1996).	
	C13	LUND, et al., "Oligosaccharide-protein interactions in IgG can modulate recognition by Fc gamma receptors," <i>Faseb J</i> , 9:115-119 (1995).	
	C14	WHITE, et al., "Antibody-targeted immunotherapy for treatment of malignancy," <i>Annu Rev Med</i> , 52:125-145 (2001).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>		
		Application Number	10/822,231	
		Filing Date	March 26, 2004	
		First Named Inventor	Lazar, et al.	
		Art Unit	1644	
		Examiner Name	Crowder, Chun	
Sheet	9	20	Attorney Docket Number	A-71386-8 (463077-00275)

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>6</sup>
	C15	AASE, A. et al. "The extended hinge region of IgG3 is not required for high phagocytic capacity mediated by Fc gamma receptors, but the heavy chains must be disulfide bonded," <i>Eur J Immunol.</i> , 23(7):1546-1551 (July 1993).		
	C16	ABADEH, S., et al., "Remodelling the oligosaccharide of human IgG antibodies: effects on biological activities," <i>Biochem Soc Trans.</i> , 25(4):S661 (November 1997).		
	C17	AKEWANLOP, C., et al., "Phagocytosis of Breast Cancer Cells Mediated by Anti-MUC-1 Monoclonal antibody, DF3, and Its Bispecific Antibody" <i>Cancer Research</i> , 61:4061-4065 (May 15, 2001).		
	C18	ALEGRE, M., et al., "Effect of a Single Amino Acid Mutation on the Activating and Immunosuppressive Properties of a "Humanised" OKT3 Monoclonal Antibody," <i>J. Immunology</i> , 148:3461-3468 (June 1992).		
	C19	AMIGORENA, S., et al., "Fc receptors for IgG and antigen presentation on MHC class I and class II molecules" <i>Immunology</i> , 11:385-390 (1999).		
	C20	ARMOUR, K. L., et al., "Differential binding to human FcγRIIIa and FcγRIIb receptors by human IgG wildtype and mutant antibodies," <i>Molecular Immunology</i> , 40:585-593 (2003).		
	C21	ASHKENAZI, A., et al., "Mapping the CD4 binding site for human immunodeficiency virus by alanine-scanning mutagenesis," <i>PNAS, USA</i> , 87:7150-7154 (September 1990).		
	C22	BOLLAND, S. "A Newly Discovered Fc Receptor tha Explains IgG-Isotype Disparities in Effector Responses," <i>J. Immunol.</i> , 23:2-4 (July 2005).		
	C23	BORUCHOV, A. M., et al., "Activating and inhibitory IgG Fc receptors on human DCs mediate opposing functions" <i>J. Clin. Invest.</i> doi:10.1172/JCI24772 (September 16, 2005).		
	C24	BOWLES, J. A., et al., "CD16 polymorphisms and NK activation induced by monoclonal antibody-coated target cells," <i>Journal of Immunological Methods</i> , pgs.1-12 (2005).		
	C25	BREKKE, O. H., et al., "Human IgG isotype-specific amino acid residues affecting complement-mediated cell lysis and phagocytosis," <i>Eur J. Immunol.</i> , 24(10):2542-5247 (October 1994).		
	C26	BREKKE, O. H., et al., "Human IgG3 can adopt the disulfide bond pattern characteristic for IgG1 without resembling it in complement mediated cell lysis," <i>Mol. Immunol.</i> 30(16):1419-1425 (November 1993).		
	C27	BRUGGEMAN, M., et al., "Comparison of the Effector Functions of Human Immunoglobulins Using A Matched Set of Chimeric Antibodies," <i>J. Exp. Med.</i> , 166:1351-1361 (November 1987).		
	C28	BRUGGEMANN, M., et al., "A matched set of rat/mouse chimeric antibodies. Identification and biological properties of rat H chain constant regions mu, gamma 1, gamma 2a, gamma 2b, gamma 2c, epsilon, and alpha," <i>J. Immunol.</i> , 142(9):3145-3150 (May 1989).		
	C29	BURMEISTER, W. P., et al., "Crystal structure of the complex of rat neonatal Fc receptor with Fc" <i>Nature</i> , 372:379-383 (November 24, 1994).		
	C30	CANFIELD, S. M., et al., "The Binding Affinity of Human IgG for its High Affinity Fc Receptor is Determined by Multiple Amino Acids in the C <sub>H</sub> 2 Domain and Is Modulated by the Hinge Region," <i>J. Exp. Med.</i> , 173:1483-1491 (June 1991).		
	C31	CARON, P. C., et al., "Engineered Humanized Dimeric Forms of IgG Are More Effective Antibodies," <i>J. Exp. Med.</i> , 176:1191-1195 (October 1992).		
	C32	CARON, P. C., et al., "Murine and humanized constructs of monoclonal antibody M19 (anti-CD33) for the therapy of acute myelogenous leukemia," <i>Cancer</i> , 73(3 Supp):1049-1056 (February 1994).		

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>		
		Application Number	10/822,231	
		Filing Date	March 26, 2004	
		First Named Inventor	Lazar, et al.	
		Art Unit	1644	
		Examiner Name	Crowder, Chun	
Sheet	10	20	Attorney Docket Number	A-71386-8 (463077-00275)

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	C33	CARPENTER, P.A., et al., "Non-Fc Receptor-Binding Humanized Anti-CD3 Antibodies Induce Apoptosis of Activated Human T Cells," <i>Journal of Immunology</i> , 165:6205-6213 (2000).	
	C34	CARTER, P., et al., "Humanization of an anti-p185 <sup>HER2</sup> antibody for human cancer therapy" <i>PNAS</i> , 89:4285-4289 (May 1992).	
	C35	CARTON, G., et al., "Therapeutic activity of humanized anti-Cd20 monoclonal antibody and polymorphism in IgG Fc receptor FcγRIIIa gene," <i>Blood</i> , 99(3):754-758 (February 1, 2002).	
	C36	CHAPMAN, P. B., "T-Cell Chauvinists Versus Antibody Advocates- Can't We All Just Get Along?" <i>J. Clin. Oncology</i> , 22(22):4446-4448 (November 15, 2004).	
	C37	CHAPPEL, M. S., et al., "Identification of a Secondary FcγRI Binding Site within a Genetically Engineered Human IgG Antibody," <i>J. Biol. Chem.</i> , 268(33):25124-25131 (November 1993).	
	C38	CHAPPEL, M. S., et al., "Identification of the Fcγ receptor class I binding site in human IgG through the use of recombinant IgG1/IgG2 hybrid and point-mutated antibodies," <i>PNAS, USA</i> , 88:9036-9040 (October 1991).	
	C39	CHINTALACHARUVU, K. R., et al., "Hybrid IgA2/IgG1 Antibodies with Tailor-Made Effector Functions," <i>Clinical Immunology</i> , 101(1):21-31- (October 2001).	
	C40	CLARK, M. R., "Chemical Immunology Antibody Engineering IgG Effector Mechanisms," Dissertation submitted to Immunology Division of Department of Pathology at Cambridge University, UK (NO DATE)	
	C41	CLYNES, R. A., et al., "Inhibitory Fc receptors modulate <i>in vivo</i> cytotoxicity against tumor targets," <i>Nature Medicine</i> , 6(4):443-446 (April 2000).	
	C42	CLYNES, R. et al., "Modulation of Immune complex-induced Inflammation <i>In Vivo</i> by the Coordinate Expression of Activation and Inhibitory Fc Receptors," <i>J. Exp. Med.</i> , 189(1):179-185 (January 4, 1999).	
	C43	CLYNES, R., "Immune complexes as therapy for autoimmunity" <i>J. Clin. Invest.</i> , 115:25-27 (2005).	
	C44	CLYNES, R., et al., "Fc receptors are required in passive and active immunity to melanoma," <i>PNAS USA</i> , 95:652-656 (January 1998).	
	C45	COHEN-SODAL, J. FG., et al., "Review: Fcγ receptors" <i>Immunology Letts</i> , 92:199-205 (2004).	
	C46	COLE, M. S., et al., "Human IgG2 variants of chimeric anti-CD3 are nonmitogenic to T cells," <i>J. Immunol.</i> , 159(7):3613-3621 (October 1, 1997).	
	C47	COLOMA, M. J., et al., "The hinge as a spacer contributes to covalent assembly and is required for function of IgG," <i>J. Immunol.</i> , 158(2):733-740 (January 15, 1997).	
	C48	D'USCIO, C. H., et al., "Cellular cytotoxicity mediated by isotype-switch variants of a monoclonal antibody to human neuroblastoma," <i>Br. J. Cancer</i> , 64(3):445-450 (September 1991).	
	C49	DA SILVEIRA, S. A., et al., "Complement Activation Selectively Potentiates the Pathogenicity of the IgG2 b and IgG3 Isotypes of a High Affinity Anti-Erythrocyte Autoantibody," <i>J. Exp. Med.</i> , 195(6):665-672 (March 18, 2002).	
	C50	DALL'ACQUA, D. F., et al., "Increasing the Affinity of a Human IgG1 for the Neonatal Fc Receptor: Biological Consequences," <i>Journal of Immunology</i> , 169:5171-5180 (2002).	
	C51	DAVIS, R. S., et al., "Fc receptor homologs: newest members of a remarkably diverse Fc receptor gene family," <i>Imm. Revs.</i> , 190:123-136 (2002).	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number	10/822,231	
			Filing Date	March 26, 2004	
			First Named Inventor	Lazar, et al.	
			Art Unit	1644	
			Examiner Name	Crowder, Chun	
Sheet	11		20	Attorney Docket Number	A-71386-8 (463077-00275)

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	† <sup>6</sup>
	C52	DAVIS, R. S., et al., "Identification of a family of Fc receptor homologs with preferential B cell expression," <i>PNAS, USA</i> , 98(17):9772-9777 (August 2001).	
	C53	DELANO, W. L., et al., "Convergent Solutions to Binding at a Protein-Protein Interface" <i>Science</i> , 287:1279-1283 (February 18, 2000).	
	C54	DHODAPKAR, K.M., et al., "Antitumor Monoclonal Antibodies Enhance Cross-Presentation of Cellular Antigens and the Generation of Myeloma-specific Killer T-Cells by Dendritic Cells" <i>J. Exp Med.</i> , 195(1):125-133 (January 7, 2002).	
	C55	DHODAPKAR, K.M., et al., "Recruiting dendritic cells to improve antibody therapy of cancer" <i>PNAS</i> , 102(18):6243-6244 (May 3, 2005).	
	C56	DHODAPKAR, K.M., et al., "Selective blockade of inhibitory Fcγ receptor enables human dendritic cell maturation with IL-12p70 production and immunity to antibody-coated tumor cells" <i>PNAS</i> , 102(8):2910-2915 (February 22, 2005).	
	C57	DHODAPKAR, M. V., et al., "T cells from the tumor microenvironment of patients with progressive myeloma can generate strong, tumor-specific cytolytic responses to autologous, tumor-loaded dendritic cells" <i>PNAS</i> , 99(20):13009-13013 (October 1, 2002).	
	C58	DUNCAN, A. R., et al., "Localization of the binding site for the human high-affinity Fc receptor on IgG," <i>Nature</i> , 332:563 - 564 (April 7, 1988).	
	C59	DUNCAN, A. R., et al., "The binding site for C1q on IgG," <i>Nature</i> 332:738 - 740 (April 21, 1988).	
	C60	EDELMAN, G. M., et al., "The Covalent Structure of an Entire γG Immunoglobulin Molecule," <i>PNAS</i> , 63:78-85 (1969).	
	C61	EHRHARDT, G. R. A., et al., "Th inhibitory potential of Fc receptor homolog 4 on memory B cells," <i>PNAS, USA</i> , 100(23):13489-13494 (November 2003).	
	C62	ELLISON, J. W., et al., "The nucleotide sequence of a human immunoglobulin Cγ <sub>1</sub> gene" <i>Nucleic Acids Research</i> , 10(13):4071-4079(1982).	
	C63	ERNST, L. K., et al., "Molecular characterization of six variant Fcγ receptor class I (CD64) transcripts," <i>Molecular Immunology</i> , 35:943-954 (1998).	
	C64	FACCHETTI, F., et al., "An unusual Fc receptor-related protein expressed in human centroblasts," <i>PNAS, USA</i> , 99(6):3776-3781 (March 19, 2002).	
	C65	GABORIAUD, C., et al., "The Crystal Structure of the Globular Head of Complement Protein C1q Provides a Basis for Its Versatile Recognition Properties," <i>J. Biol. Chem.</i> , 278(47):46974-46982 (2003).	
	C66	GARMAN, S. C., et al., "Structure of the Fc fragment of human IgG bound to its high-affinity receptor FcεR1α," <i>Nature</i> , 406:259-266 (2000).	
	C67	GETAHUN, A., et al., "IgG2a-Mediated Enhancement of Antibody and T Cell Responses and Its Relation to Inhibitory and Activating Fcγ Receptors," <i>J. of Immunology</i> , 172:5269-5276 (2004).	
	C68	GHAZIZADEH, S., et al., "Physical and Functional Association of Src-related Protein Tyrosine Kinases with FcRII in Monocytic THP-1 Cells," <i>J. Biol. Chem.</i> , 269(12):8878-8884 (March 25, 1994).	
	C69	GHETIE, V., et al., "FcRn: the MHC class I-related receptor that is more than an IgG transporter" <i>Immunology Today</i> , 18(12):592-598 (December 1997).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>		
		Application Number	10/822,231	
		Filing Date	March 26, 2004	
		First Named Inventor	Lazar, et al.	
		Art Unit	1644	
		Examiner Name	Crowder, Chun	
Sheet	12	20	Attorney Docket Number	A-71386-8 (463077-00275)

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	C70	GHETIE, V., et al., "Increasing the serum persistence of an IgG fragment random mutagenesis," <i>Nat. Biotechnol.</i> , 15(7):637-640 (July 1997).	
	C71	GHETIE, V., et al., "Multiple Roles for the Major Histocompatibility Complex Class I-Related Receptor FcRn," <i>Annu. Rev. Immunol.</i> 18:739-766 (2000).	
	C72	GONZALES, N. R., et al., "SDR grafting of a murine antibody using multiple human germline templates to minimize its immunogenicity," <i>Molecular Immunology</i> , 41:863-872 (2004).	
	C73	GREENWOOD, J. "Molecular Recognition in the Structure and Assembly of Filamentous Bacteriophages," Dissertation submitted to the University of Cambridge (October 1989).	
	C74	GREENWOOD, J., et al., "Structural motifs involved in human IgG antibody effector functions," <i>Eur. J. Immunol.</i> , 23(5):1098-1104 (May 1993).	
	C75	GREENWOOD, J., et al., "Dual Importance of Positive Charge in the C-Terminal Region of Filamentous Bacteriophage Coat Protein for Membrane Insertion and DNA-Protein Interaction in Virus Assembly," <i>Virology</i> , 171:444-452 (1989).	
	C76	Greenwood, J., et al., "Effector functions of matched sets of recombinant human IgG subclass antibodies," Dissertation submitted to Cambridge University, Cambridge, UK (February 1993).	
	C77	GREENWOOD, J., et al., "Engineering multiple-domain forms of the therapeutic antibody CAMPATH-1H: effects on complement lysis," <i>Ther Immunol.</i> , 1(5):247-255 (October 1994).	
	C78	GROH, V., et al., "Efficient cross-priming of tumor antigen specific T cells by dendritic cells sensitized with diverse anti-MICA opsonized tumor cells" <i>PNAS</i> , 102(18):6461-6466 (May 3, 2005).	
	C79	HARRISON, P. T., et al., "Domain swap chimeras to study the binding of IgG by Fc gamma RI, the high affinity receptor for IgG," <i>Biochem Soc Trans.</i> , 24(1):144S (Feb 1996).	
	C80	HAZENBOS, W.L., et al., "Murine IgG1 complexes Trigger Immune Effector Functions Predominately via FcγRIII (CD16)," <i>J. of Immunology</i> , 161:3026-3032 (1998).	
	C81	HENRY, A. J., et al., "Participation of the N-Terminal of Cε3 in the Binding of Human IgE to Its High-Affinity Receptor FcεRI," <i>Biochemistry</i> , 36:15568-15578 (1997).	
	C82	HEZAREH, M., et al., "Effector Function Activities of a Panel of Mutants of a Broadly Neutralizing Antibody against Human Immunodeficiency Virus Type 1," <i>Journal of Virology</i> , 75(24):12161-12168 (2001).	
	C83	HINTON, P. R., et al., "Engineered human IgG Antibodies with Longer Serum Half-Lives in Primates," <i>J. Biol Chem.</i> , 279(8):6213-6216 (February 20, 2004).	
	C84	IDUSOGIE, E. E., et al., "Engineered Antibodies with Increased Activity to Recruit Complement," <i>J. of Immunology</i> , 166:2571-2575 (2001).	
	C85	IDUSOGIE, E.E., et al., "Mapping of the C1q Binding Site on Rituxan, a Chimeric Antibody with a Human IgG1 Fc," <i>J. of Immunology</i> , 164:4178-4184 (2000).	
	C86	ISAACS, J. D., "Improving Serotherapy with Monoclonal Antibodies" dissertation submitted to the University of Cambridge (March 1991).	
	C87	ISAACS, J. D., et al., "From bench to bedside: discovering rules for antibody design, and improving serotherapy with monoclonal antibodies," <i>Rheumatology</i> , 40:724-738 (2001).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>		
		Application Number	10/822,231	
		Filing Date	March 26, 2004	
		First Named Inventor	Lazar, et al.	
		Art Unit	1644	
		Examiner Name	Crowder, Chun	
Sheet	13	20	Attorney Docket Number	A-71386-8 (463077-00275)

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>2</sup>
	C88	ISSACS, J. D., et al., "Therapy with Monoclonal Antibodies, II. The contribution of Fc $\gamma$ Receptor binding and the Influence of C <sub>H</sub> 1 and C <sub>H</sub> 3 Domains on In Vivo Effector Function," <i>J. of Immunology</i> , 161:3862-3869 (1998).		
	C89	ISSACS, J. D., et al., "Therapy with Monoclonal Antibodies: an in vivo model for the assessment of therapeutic potential," <i>J. Immunol.</i> , 148(10):3062-3071 (May 15, 1992).		
	C90	JEFFERIS, R. et al., "Recognition sites on human IgG for Fc gamma receptors: the role of glycosylation," <i>Immunol Letters</i> , 44(2-3):111-117 (January 1995).		
	C91	JEFFERIS, R., et al., "Interaction sites on human IgG-Fc for Fc $\gamma$ R: current models," <i>Immunology Letts.</i> , 82:57-65 (2002).		
	C92	JEFFERIS, R., et al., "Modulation of Fc $\gamma$ R and human complement activation by IgG3-core oligosaccharide interactions," <i>Immunology Letters</i> , 54:101-104 (1996) and errata at <i>Immunology Letters</i> , 58:67 (1997).		
	C93	JEFFERIS, R., et al., "Molecular definition of interaction sites on human IgG for Fc receptors (huFc gamma R)," <i>Mol Immunol.</i> , 27(12):1237-1240 (December 1990).		
	C94	JENDEBERG, L., et al., "Engineering of Fc <sub>1</sub> and Fc <sub>3</sub> from human immunoglobulin G to analyse subclass specificity for staphylococcal protein A," <i>Journal of Immunological Methods</i> , 201:25-34 (1997).		
	C95	JUNGHANS, R. P., et al., "The protection receptor for IgG catabolism is the $\beta_2$ -microglobulin-containing neonatal intestinal transport receptor," <i>PNAS</i> , 93:5512-5516 (May 1996).		
	C96	KALERGIS, A.M., et al., "Inducing Tumor Immunity through the Selective Engagement of Activating Fc $\gamma$ Receptors on Dendritic Cells" <i>J. Exp. Med.</i> 195(12):1653-1659 (June 17, 2002).		
	C97	KAN, K. S., et al., "Thioether-Bonded Constructs of Fab $\gamma$ and Fc $\gamma$ Modules Utilizing Differential Reduction of Interchain Disulfide Bonds," <i>Journal of Immunology</i> , 166:1320-1326 (2001).		
	C98	KARASSA, F. B., et al., "The role of Fc $\gamma$ RIIA and IIIa polymorphisms in autoimmune diseases," <i>Biomedicine &amp; Pharmacotherapy</i> , 58:286-291 (2004).		
	C99	KIM, J. et al., "Mapping the site on human IgG for binding of the MHC class I-related receptor, FcRn" <i>Eur. J. Immunol.</i> , 29:2819-2825 (1999).		
	C100	KIM, J. K., et al., "Localization of the site of the murine IgG1 molecule that is involved in binding to the murine intestinal Fc receptor," <i>Eur J Immunol.</i> , 24(10):2429-2439 (October 1994).		
	C101	KIM, J.K., et al., "Identifying amino acid residues that influence plasma clearance of murine IgG1 fragments by site-directed mutagenesis," <i>Eur J. Immunol.</i> , 24(3):542-548 (March 1994).		
	C102	KIM, T. D., et al., "Analysis of Fc $\gamma$ RIII and IgG Fc Polymorphism Reveals Functional and Evolutionary Implications of Protein-Protein Interaction," <i>J. Mol. Evol.</i> , 53:1-9 (2001).		
	C103	KURUCZ, I., et al., "Bacterially expressed human Fc $\gamma$ RIIb is soluble and functionally active after in vitro refolding" <i>Immunology Letts.</i> , 75:33-40 (2000).		
	C104	LUND, J., et al., "A protein structural change in aglycosylated IgG3 correlates with loss of huFc gamma R1 and huFc gamma R111 binding and/or activation," <i>Mol. Immunol.</i> , 27(11):1145-1153 (November 1990).		
	C105	LUND, J., et al., "Control of IgG/Fc glycosylation: a comparison of oligosaccharides from chimeric human/mouse and mouse subclass immunoglobulin Gs," <i>Mol Immunol.</i> , 30(8):741-748 (June 1993).		
	C106	MAENAKA, K., et al., "The Human Low Affinity Fc $\gamma$ Receptors IIa, IIb and III Bind IgG with Fast Kinetics and Distinct Thermodynamic Properties" <i>J. Biol. Chem.</i> 276(48):44898-44904 (2001).		

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>		
		Application Number	10/822,231	
		Filing Date	March 26, 2004	
		First Named Inventor	Lazar, et al.	
		Art Unit	1644	
		Examiner Name	Crowder, Chun	
Sheet	14	20	Attorney Docket Number	A-71386-8 (463077-00275)

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	C107	MARTIN, W. L., et al., "Characterization of the 2:1 Complex between the Class I MHC-Related Fc Receptor and Its Fc Ligand in Solution," <i>Biochemistry</i> , 38:12639-12647 (1999).	
	C108	MARTIN, W. L., et al., "Crystal Structure at 2.8 Å of an FcRn/Heterodimeric Fc Complex: Mechanism of pH-Dependent Binding" <i>Molecular Cell</i> , 7:867-877 (April 2000).	
	C109	MASZTALERZ, A., et al., "Mechanisms of macrophage cytotoxicity in IL-2 and IL-12 mediated tumor regression," <i>Cancer Immunol Immunother</i> , 52:235-242 (2003).	
	C110	MAXWELL, K.F., et al., "Crystal structure of the human leukocyte Fc receptor, FcRIIa." <i>Nature Structural Biology</i> , 6(5):437-442 (May 1999).	
	C111	MAYFIELD, S. P., et al., "Expression and assembly of a fully active antibody algae," <i>PNAS</i> , 100(2):438-442 (January 21, 2003).	
	C112	MECHETINA, L. V., et al., "Identification of CD16-2, a novel mouse receptor homologous to CD16/FcγRIII," <i>Immunogenetics</i> , 4:463-468 (2002).	
	C113	MERCHANT, A. M. et al., "An efficient route to human bispecific IgG," <i>Nat Biotechnol.</i> , 16(7):677-681 (1998).	
	C114	METES, D., et al., "Expression of Functional CD32 Molecules on Human NK Cells Is Determined by and Allelic Polymorphism of the FcγRIIC Gene," <i>Blood</i> , 91(7):2369-2380 (April 1, 1998).	
	C115	MICHAELSON, T. E., et al., "Antibody Dependent Cell-Mediated Cytotoxicity Induced by Chimeric Mouse-Human IgG Subclass and IgG3 Antibodies with Altered Hinge Region," <i>Molecular Immunology</i> , 29(3):319-326 (1992).	
	C116	MICHAELSON, T. E., et al., "One disulfide bond in front of the second heavy chain constant region is necessary and sufficient for effector functions of human IgG3 without a genetic hinge," <i>PNAS</i> , 91:9243-9247 (September 1994).	
	C117	MICHAELSON, T. E., et al., "Primary Structure of the 'Hinge' Region of Human IgG3," <i>J Biol Chem.</i> , 252(3):883-889 (February 1977).	
	C118	MILLER, I., et al., "ITRA: a new family of immunoglobulinlike receptors differentially expressed in B cells," <i>Blood</i> , 99(8):2662-2669 (April 15, 2002).	
	C119	MIMURA, Y., et al., "Role of Oligosaccharide Residues of IgG1-Fc in FcγRIIb Binding," <i>J. Biol. Chem.</i> , 276(49):45539-45547 (December 7, 2001).	
	C120	MORGAN, A., et al., "The N-terminal end of the CH2 domain of chimeric human IgG1 anti-HLA-DR is necessary for C1q, Fc gamma R1 and Fc gamma RIII binding," <i>Immunology</i> , 86(2):319-324 (October 1995).	
	C121	NAKAMURA, K., et al., "Dissection and optimization of immune effector functions of humanized anti-ganglioside GM2 monoclonal antibody," <i>Molecular Immunology</i> , 37:1035-1046 (2000).	
	C122	NEIDHARDT-BERARD, E., et al., "Dendritic cells loaded with killed breast cells induce differentiation of tumor-specific cytotoxic T lymphocytes" <i>Breast Cancer Res.</i> , 6R322-R328 (April 30, 2004).	
	C123	NIMMERJAHN, F., et al., "Divergent Immunoglobulin-G Subclass Activity Through Selective Fc Receptor Binding" <i>Science</i> , 310:1510 (2005).	
	C124	NIMMERJAHN, F., et al., "FcγRIV: A Novel FcR with Distinct IgG Subclass Specificity," <i>Immunity</i> , 23:41-51 (July 2005).	
	C125	NIMMERJAHN, F., et al., "Supporting Online Material for: Divergent Immunoglobulin G Subclass Activity Through Selective Fc Receptor Binding" <i>Science</i> , 310:1510 (2005).	
Examiner Signature			Date Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>		
		Application Number	10/822,231	
		Filing Date	March 26, 2004	
		First Named Inventor	Lazar, et al.	
		Art Unit	1644	
		Examiner Name	Crowder, Chun	
Sheet	15	20	Attorney Docket Number	A-71386-8 (463077-00275)

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	† <sup>6</sup>
	C126	NIWA, R., et al., "Defucosylated Chimeric Anti-CC Chemokine Receptor 4 IgG1 with Enhanced Antibody-Dependent Cellular cytotoxicity Shows Potent Therapeutic Activity to T-Cell Leukemia and Lymphoma," <i>Cancer Research</i> , 64:2127-2133 (March 15, 2004).	
	C127	NORDERHAUG, L., et al., "Chimeric mouse human IgG3 antibodies with an IgG4-like hinge region induce complement-mediated lysis more efficiently than IgG3 with normal hinge," <i>Eur J Immunol.</i> , 21(10):2379-2384 (October 1991).	
	C128	O'CONNOR, S. J., et al., "Humanization of an antibody against human protein C and calcium-dependence involving framework residues," <i>Protein Engineering</i> , 11(4):321-328 (1998).	
	C129	OBER, R. J., et al., "Differences in promiscuity for antibody-FcRn interactions across species: implications for therapeutic antibodies," <i>International Immunology</i> , 13(12):1551-1559 (2001).	
	C130	OBER, R. J., et al., "Exocytosis of IgG as mediated by the receptor, FcRn: An analysis at the single-molecule level" <i>PNAS</i> , 101(30):11076-11081 (July 27, 2004).	
	C131	OKAZAKI, A., et al., "Fucose Depletion from Human IgG1 Oligosaccharide Enhances Binding Enthalpy and Association Rate Between IgG1 and Fcγ RIIa," <i>J. Mol. Biol.</i> , 336:1239-1249 (2004).	
	C132	PARREN, P. W., et al., "Characterization of IgG FcR-mediated proliferation of human T-cells induced by mouse and human anti-CD3 monoclonal antibodies. Identification of a functional polymorphism to human IgG2 anti-CD3," <i>J. Immunol.</i> , 148(3):695-701 (February 1992).	
	C133	PARREN, P. W., et al., "On the interaction of IgG subclasses with the low affinity Fc gamma RIIa (CD32) on human monocytes, neutrophils, and platelets. Analysis of a functional polymorphism to human IgG2," <i>J Clin Invest.</i> , 90(4):1537-1546 (October 1992).	
	C134	PEARCE, K. H., et al., "Mutational Analysis of Thrombopoietin for Identification of Receptor and Neutralizing Antibody Sites," <i>J. Biol. Chem.</i> , 272(33):20595-20602 (1997).	
	C135	PREITHNER, S., et al., "High concentrations of therapeutic IgG1 antibodies are needed to compensate for inhibition of antibody-dependent cellular cytotoxicity by excess endogenous immunoglobulin G," <i>Molecular Immunology</i> , (2005).	
	C136	PRESTA, L. G., et al., "Engineering therapeutic antibodies for improved function," <i>Biochemical Society Transactions</i> , 30(part 4):487-490 (2002).	
	C137	RADAEV, S., et al., "Recognition of IgG by Fcγ Receptor," <i>J. Biol. Chem.</i> , 276(19):16478-16483 (May 11, 2001).	
	C138	RADAEV, S., et al., "Review: Recognition of immunoglobulins by Fcγ receptors," <i>Molecular Immunology</i> , 38:1073-1083 (2001).	
	C139	RADAEV, S., et al., "The Structure of Human Type III Fcγ Receptor in Complex with Fc," <i>J. Biol. Chem.</i> , 276(19):16469-16477 (May 11, 2001).	
	C140	RAFIQ, K., et al., "Immune complex-mediated antigen presentation induces tumor immunity" <i>J. Clin. Invest.</i> 110:71-79 (2002).	
	C141	RAGHAVAN, M., et al., "Fc Receptors and Their Interactions with Immunoglobulins" <i>Annu. Rev. Cell Div. Biol.</i> , 12:181-220 (1996).	
	C142	RAVETCH, J. V., et al., "IgG Fc Receptors" <i>Annu. Rev. Immunol.</i> , 19:275-290 (2001).	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>		
		Application Number	10/822,231	
		Filing Date	March 26, 2004	
		First Named Inventor	Lazar, et al.	
		Art Unit	1644	
		Examiner Name	Crowder, Chun	
Sheet	16	20	Attorney Docket Number	A-71386-8 (463077-00275)

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	† <sup>6</sup>
	C143	RAVETCH, J. V., et al., "Immune Inhibitory Receptors," <i>Science</i> , 290:84-89 (October 6, 2000).	
	C144	RAVETCH, J.V., et al., "Fc Receptors," <i>Annu. Rev. Immunol.</i> , 9:457-492 (1991).	
	C145	REDDY, P. R., et al., "Elimination of Fc Receptor-Dependent Effector Functions of a Modified IgG4 Monoclonal Antibody to Human CD4" <i>J. Immunol.</i> , 164:1925-1933 (2000).	
	C146	REDPATH, S., et al., "The Influence of the Hinge Region Length in Binding of Human IgG to Human Fcγ Receptors," <i>Human Immunology</i> , 59:720-727 (1998).	
	C147	ROZSNYAY, Z., et al., "Distinctive role of IgG1 and IgG3 isotypes in FcR-mediated functions," <i>Immunology</i> , 66(4):491-498 (April 1989).	
	C148	SANDLIE, A.A., "The extended hinge region of IgG3 is not required for high phagocytic capacity mediated by Fc gamma receptors, but the heavy chains must be disulfide bonded," <i>Eur J. Immunol.</i> 23(7):1546-1551 (July 1993).	
	C149	SARMAY, G., et al., "Mapping and Comparison of the Interaction Sites on The Fc Region of IgG Responsible for Triggering Antibody Dependent Cellular Cytotoxicity (ADCC) Through Different Types of Human Fcγ Receptor," <i>Molecular Immunology</i> , 29(5):633-639 (1992).	
	C150	SAUTES-FRIDMAN, C., et al., "Fc Gamma Receptors: A Magic Link with the Outside World," <i>ASHI Quarterly</i> , 148-151, (Fourth Quarter 2003).	
	C151	SENSEL, M. G., et al., "Amino Acid Differences in the N-Terminus of C <sub>H</sub> 2 Influence The Relative abilities of IgG2 and IgG3 to Activate Complement" <i>Mol. Immunol.</i> , 34(14):1019-1029 (1997).	
	C152	SHIELDS, R. L., et al., "High Resolution Mapping of the Binding Site on Human IgG1 for Fcγ RI, Fcγ RII, Fcγ RIII, and FcRn and Design of IgG1 Variants with Improved Binding to the Fcγ R" <i>J. Biol. Chem.</i> , 276(9):6591-6604 (2001).	
	C153	SHIELDS, R. L., et al., "Lack of Fucose on human IgG1 N-Linked Oligosaccharide Improves Binding to Human Fcγ RIII and Antibody-dependent Cellular Toxicity" <i>J. Biol. Chem.</i> , 277(30):26733-26740 (2002).	
	C154	SHINKAWA, T., et al., "The Absence of Fucose but Not the Presence of Galactose or Bisecting N-Acetylglucosamine of Human IgG1 complex-type Oligosaccharides Shows the Critical Role of Enhancing Antibody-dependent Cellular Cytotoxicity" <i>J. Biol. Chem.</i> , 278(5):3466-3473 (2003).	
	C155	SHOPES, B., "A genetically engineered human IgG mutant with enhanced cytolytic activity," <i>J Immunol.</i> , 148(9):2918-2922 (May 1992).	
	C156	SHOPES, B., et al., "Recombinant human IgG1-murine IgE chimeric Ig. Construction, expression, and binding to human Fc gamma receptors," <i>J. Immunol.</i> , 145(11):3842-3848 (December 1, 1990).	
	C157	SIMMONS, L. C., et al., "Expression of full-length immunoglobulins in <i>Escherichia coli</i> ; rapid and efficient production of a glycosylated antibodies" <i>J. Immunol. Methods</i> , 263:133-147 (2002).	
	C158	SMITH, I. F. R., et al., "Addition of a μ-Tailpiece to IgG Results in Polymeric Antibodies with Enhanced Effector Functions Including Complement-Mediated Cytolysis by IgG4," <i>J. Immunology</i> , pp. 2226-2236 (1995).	
	C159	SMITH, K.G., et al., "T cell activation by anti-T3 antibodies: comparison of IgG1 and IgG2b switch variants and direct evidence for accessory function of macrophage Fc receptors," <i>Eur J Immunol.</i> , 16(5):478-486 (May 1986).	
	C160	SONDERMAN, P. et al., "Crystal structure of the soluble form of the human Fcγ-receptor IIb: a new member of the immunoglobulin superfamily at 1.7Å resolution" <i>EMBO Journal</i> , 18(5):1095-1103 (1999).	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number	10/822,231	
			Filing Date	March 26, 2004	
			First Named Inventor	Lazar, et al.	
			Art Unit	1644	
			Examiner Name	Crowder, Chun	
Sheet	17		20	Attorney Docket Number	A-71386-8 (463077-00275)

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	†	
	C161	SONDERMAN, P., et al., "Human Fc $\gamma$ Receptor IIb Expressed in <i>Escherichia coli</i> Reveals IgG Binding Capability" <i>Biol. Chem.</i> 380:717-721 (June 1999).		
	C162	SONDERMAN, P., et al., "Molecular Basis for Immune Complex Recognition: A comparison of Fc-Receptor Structures" <i>J. Mol. Biol.</i> , 309:737-749 (2001).		
	C163	SONDERMAN, P., et al., "The 3.2 -A crystal structure of the human IgG1 Fc fragment -Fc $\gamma$ RIII complex" <i>Nature</i> , 406:267-273 (July 20, 2000).		
	C164	SORENSEN, V., et al., "Effect of the IgM and IgA secretory tailpieces on polymerization and secretion of IgM and IgG," <i>J Immunol.</i> , 156(8):2858-2865 (April 1996).		
	C165	STEPLEWSKI, Z., et al., "Biological activity of human-mouse IgG1, IgG2, IgG3, and IgG4 chimeric monoclonal antibodies with antitumor specificity," <i>PNAS USA</i> , 85:4852-4856 (July 1988).		
	C166	STEVENSON, G. T., et al., "Preparation of Fc $\gamma$ for addition to sulfhydryl-expressing ligands with minimal disturbance of the hinge," <i>J. of Immunological Methods</i> , 231:169-175 (1999).		
	C167	TAO, M., et al., "Structural Features of Human immunoglobulin G that Determine Isotype-specific Differences in Complement Activation," <i>J. Exp. Med.</i> 178:661-667 (August 1993).		
	C168	TAO, M., et al., "The Differential Ability of Human IgG1 and IgG4 to Activate Complement Is Determined by the COOH-terminal Sequence of the C $\gamma$ 2 domain" <i>J. Exp. Med.</i> 173:1025-1028 (April 1991).		
	C169	THOMMESEN, J. E., et al., "Lysine 322 in the human IgG3 C $\gamma$ 2 domain is crucial for antibody dependent complement activation" <i>Molecular Immunology</i> , 37:995-1014 (2000).		
	C170	TUIJNMAN W. B., et al., "A flow cytometric rosetting assay for the analysis of IgG-Fc receptor interactions," <i>J Immunol Methods</i> , 127(2):207-214 (March 1990).		
	C171	UCHIDE, J. et al., "The Innate Mononuclear Phagocyte Network Depletes B Lymphocytes through Fc Receptor-dependent mechanisms during Anti-CD20 Antibody Immunotherapy" <i>J. Exp. Med.</i> 199(12):1659-1669 (June 21, 2004).		
	C172	UMANA, P., et al., "Engineered glycoforms of an antineuroblastoma IgG1 with optimized antibody-dependent cellular cytotoxic activity," <i>Nature Biotechnology</i> , 17:176-180 (1999).		
	C173	VAN ROYEN-KERKHOFF, A., et al., "Flow cytometric determination of Fc $\gamma$ RIIIa (CD32) polymorphism," <i>J. Immunol. Methods</i> , 294:135-144 (2004).		
	C174	VAN SCHIE, R.C.A.A., et al., "Evaluation of Human Fc $\gamma$ RIIIa (CD32) and Fc $\gamma$ RIIIB (CD16) Polymorphisms in Caucasians and African-Americans Using Salivary DNA," <i>Clinical and Diagnostic Laboratory Immunology</i> , 7(4):676-681 (July 2000).		
	C175	VAN SORGE, N. M., et al., "Fc $\gamma$ R polymorphisms: Implications for function, disease and susceptibility and immunotherapy" <i>Tissue Antigens</i> , 63:189-202 (2003).		
	C176	VIDARTE, L., et al., "Serine 132 Is the C3 Covalent Attachment Point of the CH1 domain of Human IgG1" <i>J. Biol. Chem.</i> , 276(41):38217-38223 (2001).		
	C177	WARD, E. S., et al., "Evidence to support the cellular mechanism involved in serum IgG homeostasis in humans" <i>International Immunology</i> , 15(2):187-195 (2003).		
	C178	WARMERDAM, P. A., et al., "Interaction of a human Fc gamma RIIB1 (CD32) isoform with murine and human IgG subclasses," <i>Int Immunol.</i> , 5(3):239-247 (March 1993).		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>		
		Application Number	10/822,231	
		Filing Date	March 26, 2004	
		First Named Inventor	Lazar, et al.	
		Art Unit	1644	
		Examiner Name	Crowder, Chun	
Sheet	18	20	Attorney Docket Number	A-71386-8 (463077-00275)

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	C179	WAWRZYNCZAK, E. J., et al., "Recombinant mouse monoclonal antibodies with single amino acid substitutions affecting Clq and high affinity Fc receptor binding have identical serum half-lives in the BALB/c mouse," <i>Mol. Immunol.</i> , 29(2):221-227 (February 1992).	
	C180	WEINER, L. M., et al., "Tunable antibodies," <i>Nature Biotechnology</i> , 23(5):556-557 (May 2005).	
	C181	WENG, W., et al., "Clinical Outcome of Lymphoma Patients After Idiotype Vaccination Is Correlated With Humoral Immune Response and Immunoglobulin G Fc Receptor Genotype," <i>J. Clin. Oncol.</i> , 22(23):1-8 (2004).	
	C182	WENG, W., et al., "Two Immunoglobulin G Fragment C Receptor Polymorphisms Independently Predict Response to Rituximab in Patients With Follicular Lymphoma," <i>Journal of Clinical Oncology</i> , 21(21):3940-3947 (November 1, 2003).	
	C183	WEST, A. P., et al., "Crystal Structure and immunoglobulin G Binding Properties of the Human Major Histocompatibility Complex-Related Fc Receptor," <i>Biochemistry</i> , 39:9698-9708 (2000).	
	C184	WING, M. G., et al., "Mechanism of First-Dose Cytokine-Release Syndrome of CAMPATH 1-H: Involvement of CD16 (FcγRIII) and CD11a/CD18 (LFA-1) on NK Cells," <i>J. Clin. Invest.</i> , 98(12):2819-2826 (December 1996).	
	C185	WOLFF, E.A., et al., "Monoclonal antibody homodimers: enhanced antitumor activity in nude mice," <i>Cancer Res.</i> , 53(11):2560-2565 (June 1, 1993).	
	C186	WRIGHT, A., et al., "Effect of C2-Associated carbohydrate Structure on Ig Effector Function: Studies with Chimeric Mouse-Human IgG1 Antibodies in Glycosylation Mutants of Chinese Hamster Ovary Cells" <i>J. of Immunology</i> , 160:3393-3402 (1998).	
	C187	WRIGHT, A., et al., "In vivo trafficking and catabolism of IgG1 antibodies with Fc associated carbohydrates of differing structure," <i>Glycobiology</i> , 10(12):1347-1355 (2000).	
	C188	XU, D., et al., "In Vitro Characterization of Five Humanized OKT3 Effector Function Variant Antibodies," <i>Cellular Immunology</i> , 200:16-26 (2000).	
	C189	XU, M., et al., "Molecular Cloning and Characterization of SPAP1, an Inhibitory Receptor," <i>Biochemical and Biophysical Research Communications</i> , 280:768-775 (2001).	
	C190	XU, Y., et al., "Residue at Position 331 in the IgG1 and IgG4 C <sub>H</sub> 2 Domains Contributes to Their Differential Ability to Bind and Activate Complement" <i>J. Biol. Chem.</i> 269(5):3469-3474 (1994).	
	C191	ZELASCHI, D., et al., "Human immunoglobulin allotypes: previously unrecognized determinants and alleles defined with monoclonal antibodies," <i>PNAS, USA</i> , 80:3762-3766 (June 1983).	
	C192	ZHOU, H., et al., "DNA-based vaccines activate innate and adaptive antitumor immunity by engaging the NKG2D receptor" <i>PNAS</i> , 102(31):10846-10851 (August 2, 2005).	
	C193	ZHOU, J., et al., "Generation of Mutated Variants of the Human Form of the MHC Class I-related Receptor, FcRn, with Increased Affinity for Mouse Immunoglobulin G," <i>J. Mol. Biol.</i> , 332(4):901-13 (September 2003).	
	C194	ZHU, D., et al., "A novel human immunoglobulin Fc gamma Fc epsilon RI-mediated degranulation," <i>Nat Med.</i> , 8(5):518-521 (May 2002).	
	C195	ANDREAKOS, E., et al., "Monoclonal antibodies in immune and inflammatory diseases," <i>Curr. Opin. Biotech.</i> , 13:615-620 (2002).	
	C196	CARTER, P., "Improving The Efficacy of Antibody-Based Cancer Therapies," <i>Nature Reviews</i> , 1:118-129 (2001).	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>		
		Application Number	10/822,231	
		Filing Date	March 26, 2004	
		First Named Inventor	Lazar, et al.	
		Art Unit	1644	
		Examiner Name	Crowder, Chun	
Sheet	19	20	Attorney Docket Number	A-71386-8 (463077-00275)

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	† <sup>6</sup>
	C197	CHADD, H., et al., "Therapeutic antibody expression technology," <i>Curr. Opin. Biotech.</i> , 12:188-194 (2001).	
	C198	CLARK, M. "Antibody humanization: a case of the 'Emperor's new clothes?'" <i>Immunol. Today</i> , 21(8):397-402 (2000).	
	C199	CRAGG, M., et al., "Signaling antibodies in cancer therapy," <i>Curr. Opin. Immunol.</i> , 11:541-547 (1999).	
	C200	DALL'ACQUA, W., et al., "Antibody Engineering," <i>Curr. Opin. Structural Biol.</i> , 8:443-450 (1998).	
	C201	GLENNIE, M., et al., "Clinical trials of antibody therapy," <i>Immun. Today</i> , 21(8):403-410 (2000).	
	C202	GLENNIE, M., et al., "Renaissance of cancer therapeutic antibodies," <i>Drug Discovery Today</i> , 8(11):503-510 (2003).	
	C203	HAYHURST, A., et al., "High-throughput antibody isolation," <i>Curr. Opin. Chem. Biol.</i> , 5:683-689 (2001).	
	C204	HOGARTH, P., "Fc receptors are major mediators of antibody based inflammation in autoimmunity," <i>Curr. Opin. Immunol.</i> , 14:798-802 (2002).	
	C205	HOLLIGER, P., et al., "Antibodies come back from the brink," <i>Nature Biotechnology</i> , 16:1015-1016 (1998).	
	C206	HUDSON, P., "Recombinant antibody constructs in cancer therapy," <i>Curr. Opin. Immunology</i> , 11:548-557 (1999).	
	C207	HUDSON, P., "Recombinant antibody fragments," <i>Curr. Opin. in Biotechnology</i> , 9:395-402 (1998).	
	C208	JOHNSON, G., et al., "Kabat Database and its applications: 30 years after the first variability plot," <i>Nucleic Acids Research</i> , 28(1):214-218 (2000).	
	C209	JOHNSON, G., et al., "Kabat Database and its applications: future directions," <i>Nucleic Acids Research</i> , 29(1):205-206 (2001).	
	C210	MAYNARD, J., et al., "Antibody Engineering," <i>Annu. Rev. Biomed. Eng.</i> , 2:339-376 (2000).	
	C211	MOREA, V., et al., "Antibody Modeling: Implications for Engineering and Design," <i>Methods</i> , 20:267-279 (2000).	
	C212	PENICHER, M., et al., "Antibody-cytokine fusion proteins for the therapy of cancer," <i>Journal of Immunological Methods</i> , 248:91-1010 (2001).	
	C213	REICHERT, J., "Monoclonal antibodies in the clinic," <i>Nature Biotechnology</i> , 19:819-822 (2001).	
	C214	THRUSH, G., et al., "Immunotoxins: An Update," <i>Ann. Rev. Immunol.</i> , 14:49-71 (1996).	
	C215	TORPHY, T., et al., "Pharmaceutical biotechnology Monoclonal antibodies: boundless potential, daunting challenges – Editorial Overview," <i>Curr. Opin. Biotechnol.</i> , 13:589-591 (2002).	
	C216	TRAIL, P., et al., "Monoclonal antibody drug conjugates in the treatment of cancer" <i>Curr. Opin. Immunol.</i> , 11:584-588 (1999).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>			
		Application Number	10/822,231		
		Filing Date	March 26, 2004		
		First Named Inventor	Lazar, et al.		
		Art Unit	1644		
		Examiner Name	Crowder, Chun		
Sheet	20		20	Attorney Docket Number	A-71386-8 (463077-00275)

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	C217	TRIKHA, M., "Monoclonal antibodies as therapeutics in oncology," <i>Curr. Opin. Biotech.</i> , 13:609-614 (2002).	
	C218	VAN DIJK, M., et al., "Human antibodies as next generation therapeutics," <i>Curr Opin. Chem. Biol.</i> , 5:368-374 (2001).	
	C219	VAN SORGE, N., et al., "Fcγ R polymorphisms: Implications for function, disease susceptibility and immunotherapy," <i>Tissue Antigens</i> , 61:189-202 (2003).	
	C220	VASSEROT, A., et al., "Optimization of protein therapeutics by directed evolution," <i>Drug Discovery Today</i> , 8(3):118-126 (2003).	
	C221	WALDMANN, T., et al., "Emerging Therapies: Spectrum of Application of Monoclonal Antibody Therapy," <i>Hematology</i> , 394-408 (2000).	

4821-0582-0673\1

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and selection option 2